Outgoing
C0150032

OGMCOAL - Re: Crandall Canyon Iron Treatment Facility Update

From: Kevin Lundmark
To: Dana Marrelli
Date: 3/24/2010 2:47 PM
Subject: Re: Crandall Canyon Iron Treatment Facility Update
CC: Dale Harber; Daron Haddock; Dave Shaver; David Hibbs; Farley Wood; ...

Dana,
To document on our conversation today, I understand that tomorrow you will be collecting a sample at the pond outlet for both total and dissolved aluminum. The dissolved aluminum analysis is necessary to allow comparison of the treated water to Utah Water Quality Standards for cold water fisheries (Class 2B). Per R317-2-14 Table 2.14.2, the numeric criteria for aquatic wildlife for aluminum are 87 ug/L (0.087 mg/L) 4-day average and 750 ug/L (0.75 mg/L) 1-hr average. As we discussed, please ensure that the laboratory which performs the dissolved aluminum analysis is capable of providing a reporting limit (a.k.a. practical quanititation limit) of less than or equal to 0.087 mg/L.

Thank you,
Kevin

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>>> "Marrelli, Dana" <dmarrelli@coalsource.com> 3/24/2010 11:00 AM >>>
This is an update on the Crandall Canyon Iron Treatment Facility.

We have been running two chemicals, Nalco 7763 and Nalco 8158, at Crandall Canyon on a continuous basis since Monday, March 15. At the current rates, the amount of flocculent, Nalco 7763, going into the pond is 1.8 ppm; the amount of coagulant, Nalco 8158, is 58 ppm. These amounts are based on a 450 gpm flow. During the week, we installed a new Greyline AVFM-II Area-Volocity Flow Monitor. The flows have been fairly consistent averaging about 450 gpm.

Last week, two samples were taken everyday at the outlet of the pond; one sample went to Horizon Labs to test for Aluminum and one sample was sent to Nalco for a titration test for the polymer. In addition to testing for Aluminum, I have been field testing for Iron. On Thursday, March 18th, a sample from the outlet was taken to Horizon Labs and tested for Iron. The iron results came back at 0.323 mg/L. The Aluminum lab results averaged at 0.845 mg/L. The results we are seeing indicate that the Iron and the Aluminum are dropping out with the flock. Nalco has not been able to get the titration test to work with our raw water samples, but based on what we are seeing with the Iron and Aluminum, we feel the polymers are also dropping out. As soon as we have any information on the titration test, we will send out an update. In the meantime, we have purchase another pump to recirculate the flock that is building up in cell 1. We hope to even lower the current rate of the chemical that is now going into the treatment pond.

Please see the results from last week below...

Date	7763	8158	Flow Rate gpm	Iron Results	Al Results
Monday 15	Tested different rates		Didn't have new meter	1.99	0.59
Tuesday 16	.18 ppm	58 ppm	Average 450	0.50	0.81
Wednesday 17	.18 ppm	58 ppm	Average 450	0.53	1.07

Thursday 18	.18 ppm	58 ppm	Average 450	0.31 Lab (.323)	0.91
Friday 19	.18 ppm	58 ppm	Average 450	No test	No test

Dana Marrelli

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